

ABSTRACT OF THE DISCLOSURE



A system for providing liquid refrigerant subcooling by means of evaporative cooling utilizing the condensate water of said air conditioner, refrigeration/heat pump system and/or other water supply to wet the surface of the subcool heat exchanger and pass the dry exhaust air across the wetted surface of the subcool heat exchanger. A system for providing hot gas discharge refrigerant precooling into the primary condenser of an air conditioner, refrigeration or heat pump system by evaporative cooling utilizing the condensate water of said system and/or other water supply to wet the surface of the precool heat exchanger and then passing the cold, dry exhaust air across the wetted surface of the precool heat exchanger. A combination subcooler/precooler system where the cold dry building exhaust air is used to evaporatively subcool the liquid refrigerant in the water wetted (or dry) subcooler and then used to conductively cool the hot gas refrigerant.